

AMENDMENTS TO THE SPECIFICATION

Pages 2-3, bridging paragraph:

In order to achieve the foregoing object, an invention of ~~claim 1~~ a first aspect is a pneumatic tire, in which at least one rib groove extended in a tire circumferential direction is formed on a tread surface portion of a tread portion, and portions discontinuous in terms of rigidity are formed in a circumferential direction of rib lines formed by the rib groove, the discontinuous portions causing variations of tire axle force, characterized in that rigidity changing portions which cancel the variations of the tire axle force, caused by the discontinuous portions, are provided in the rib groove.

Page 4, 2nd full paragraph:

An invention of ~~claim 2~~ a second aspect is the pneumatic tire according to ~~claim 1~~ the first aspect, characterized in that protruding portions which are formed on a wall surface of the rib groove and ~~increases~~ increase rigidity against tread compression are used as the rigidity changing portions.

Pages 4-5, bridging paragraph:

An invention of claim 3 a third aspect is the pneumatic tire according to ~~any one of claims 1 and 2~~ either one of the first or second aspects, characterized in that the discontinuous portions are lug grooves which are formed at an appropriate interval in the circumferential direction of the rib lines and extended in the tire width direction.

Page 5, 2nd full paragraph:

An invention of ~~claim 4~~ a fourth aspect is the pneumatic tire according to any one of ~~claims 1 to 3~~ the first to third aspects, characterized in that the rigidity changing portions are provided at positions opposite to the discontinuous portions in the tire width direction.

Page 5, 4th full paragraph:

An invention of ~~claim 5~~ a fifth aspect is the pneumatic tire according to any one of ~~claims 1 to 4~~ the first to fourth aspects, characterized in that the discontinuous portions and the rigidity changing portions are simultaneously present on the footprint line of the tire.

Page 6, 1st full paragraph:

An invention of ~~claim 6~~ a sixth aspect is the pneumatic tire according to any one of ~~claims 1 to 5~~ the first to fifth aspects, characterized in that the rigidity changing portions are provided to correspond to every predetermined number of the discontinuous portions. Also in this case where the rigidity changing portions are made to correspond to every predetermined number of the discontinuous portions, the total number of rigidity changing portions to be formed can be reduced without significantly lowering an effect of reducing the variations of the tire axle force in the tire as a whole.

Pages 22-23, bridging paragraph:

In accordance with the invention according to ~~claim 1~~ the first aspect, the rigidity changing portions, which cancel the variations of the tire axle force caused by the discontinuous portions, are provided in the rib groove. Accordingly, the variations of the tire axle force caused by the discontinuous portions can be restricted by the rigidity changing portions, and eventually, the vibrational force to the axle is lowered, and the pattern noise caused thereby can be reduced effectively. Therefore, the vehicle cabin is kept quiet, thus making it possible to enhance the ride comfort. Moreover, the rigidity changing portions which cancel the variations of the tire axle force due to the discontinuous portions are provided in the rib groove, and thus the tire surface can be grounded smoothly. Therefore, another vibration cause can be prevented from occurring by the rigidity changing portions.

Page 23, 1st full paragraph:

In accordance with the invention according to ~~claim 2~~ the second aspect, in addition to the effect of the invention of ~~claim 1~~ the first aspect, the protruding portions which are formed on the wall surface of the rib groove and increase the rigidity against the tread compression are used as the rigidity changing portions. Accordingly, the rigidity changing portions can be formed into the simple structure in which the wall surface of the rib groove is protruded. Therefore, the rigidity changing portions can be easily formed without greatly complicating the structure of the vulcanizing mold for the tire.

Pages 23-24, bridging paragraph:

In accordance with the invention according to ~~claim 3~~ the third aspect, in addition to the effects of the inventions of ~~claims 1 and 2~~ the first and second aspects, the discontinuous portions are the lug grooves which are formed at an appropriate interval in the circumferential direction of the rib lines and extended in the tire width direction. Accordingly, the variations of the tire axle force, which are caused by the lug grooves, can be restricted by the rigidity changing portions. Therefore, the pattern noise of a general pneumatic tire can be reduced efficiently.

Page 24, 1st full paragraph:

In accordance with the invention according to ~~claim 4~~ the fourth aspect, in addition to the effects of the inventions of ~~claims 1 to 3~~ the first to third aspects, the rigidity changing portions are provided at the positions opposite to the discontinuous portions in the tire width direction. Accordingly, the rigidity changing portions and the discontinuous portions can be grounded substantially simultaneously. Therefore, the variations of the tire axle force, which are caused by the discontinuous portions, are stably canceled, thus making it possible to enhance the effect of reducing the pattern noise.

Page 24, 2nd full paragraph:

In accordance with the invention according to ~~claim 5~~ the fifth aspect, in addition to the effects of the inventions of ~~claims 1 to 4~~ the first to fourth aspects, the discontinuous portions and the rigidity changing portions are made to be simultaneously present on the footprint line of

the tire. Accordingly, at the same timing (moment) when the portions discontinuous in terms of the rigidity contact the road surface, the portions where the rigidity changing portions are formed can also be grounded. Therefore, the tire axle force varying in the portions discontinuous in terms of the rigidity can be canceled with high precision, and the effect of restricting the pattern noise can be significantly enhanced.

Pages 24-25, bridging paragraph:

In accordance with the invention according to ~~claim 6~~ the sixth aspect, in addition to the effects of the inventions of ~~claims 1 to 5~~ the first to fifth aspects, the rigidity changing portions are provided to correspond to every predetermined number of the discontinuous portions. Accordingly, the total number of rigidity changing portions to be formed is reduced without significantly lowering the effect of reducing the variations of the tire axle force in the tire as a whole, thus making it possible to achieve a cost reduction of the tire.